

FOREWORD

The purpose of this manual is to standardize policies and procedures for the design, control, inspection, and acceptance of asphaltic concrete mixtures. (In referenced documents or in DOTD and industry publications, asphaltic concrete mixtures may be referred to as hot-mix asphalt or simply HMA. In addition, asphalt cement may also be called binder.) This manual provides details of LA DOTD's procedures for Quality Control (QC) and Quality Assurance (QA), design, testing at the HMA plant, personnel certification, production, transport, placement and compaction associated with HMA mixtures. (Contractor and producer certified asphaltic concrete plant technicians will be referred to as QC technicians in this manual.)

This manual is to be used in conjunction with the 2000 Edition of the *Louisiana Standard Specifications for Roads and Bridges*. Reference is made to this manual in Section 501 (Asphaltic Concrete Mixtures) and Section 502 (Superpave Asphaltic Concrete Mixtures) of the Standard Specifications. However, this manual also standardizes department policies and procedures for Section 503 (Asphaltic Concrete Equipment and Processes), Section 508 (Stone Matrix Asphalt) and applicable subsections of Section 1002 (Asphalt Materials and Additives) and Section 1003 (Aggregates).

The following documents are referenced in this manual. The latest edition should be available at the HMA production plant and at the district laboratory:

- Specific Contract Documents, including Project Contract
- 2000 Edition of *Louisiana Standard Specifications for Roads and Bridges*
- DOTD *Testing Procedures Manual* (or DOTD *Field Testing Manual*)
- DOTD Qualified Products List (QPL)
- DOTD *Materials Sampling Manual*
- DOTD *MATT System Field Handbook*
- Applicable DOTD Engineering Directive and Standards (EDSM's)
- Applicable DOTD Construction Memoranda
- Applicable AASHTO Testing Procedures
- Applicable ASTM Testing Procedures
- Asphalt Institute *Mix Design Methods for Asphalt Concrete* – MS-2
- DOTD Superpave Quality Level Analysis Document.

Section 105.04 of the Standard Specifications establishes the following order of precedence for these documents:

1. Special Provisions
2. Plans (Contract Plans govern over Standard Plans)
3. Supplemental Specifications
4. Standard Specifications.

In addition, the DOTD Testing Procedures Manual and the Preface of Section X of the Standard Specifications states that preference should be given to testing procedures in the following order of precedence:

1. LA DOTD Testing Procedures
2. AASHTO Test Procedures
3. ASTM Test Procedures.

Typically, the 2000 Standard Specifications and/or the contract documents (such as the *Materials Sampling Manual*) will reference the specified testing procedure.

The preface of the DOTD *Testing Procedures Manual* outlines rules for numerical calculations and rounding. However, rounding determined from the use of approved computer based spreadsheets will be allowed, if the level of significance is not greater than that specified in the specific procedure. In the event that a difference in test results exists between values determined from computer spreadsheets and traditional DOTD rounding rules that influence payment factors, the DOTD method shall govern.

The use of approved computer-generated forms will be allowed, if they are similar in design to standard DOTD forms and contain the data required by the department.

Examples of DOTD forms and specification requirements referenced in this document are based on the 2000 *Standard Specifications*, but are subject to change. Therefore, it is imperative that contract documents for each project be reviewed for any specific change, update and/or addition. The examples of forms shown in this manual are current as of the manual's publication date. Be sure to check with the district laboratory for the most recent form.

All forms documenting quality control and quality assurance results shall be signed, in ink, and dated by a certified technician. All quality control documents shall be stamped with the letters "QC" with red ink, in minimum one-inch high letters, to distinguish them from quality assurance (QA) results.

Both DOTD and contractor personnel are to exercise caution while performing their duties at the plant/laboratory and in the field. They are to follow all safety procedures during sampling, testing and routine plant/roadway inspection and wear appropriate clothing, including footwear, eye protection, masks, and gloves. Loose clothing and long hair may pose a danger when working around moving parts and are not permitted.